

AMENDMENTS TO THE SPECIFICATION

The paragraph beginning on page 10, line 13 is amended as follows:

Figures 2A-C) show[[s]] AdfltCEA vs AdCMVCEA transgene expression in murine endothelial cells. The 1P-1B cell line was plated at 50,000 cells per well in 24 well plates, then transduced using various doses of either AdfltCEA or AdCMVCEA as indicated. Forty eight hours later the cells were stained using an anti-CEA antibody and DAB detection, positive signal is shown by brown precipitate. **Figure 2A:** Uninfected cells. **Figure 2B:** AdCMVCEA infected cells. **Figure 2C:** AdfltCEA infected cells. These data show the basic functionality and strength of the AdfltCEA vector.

The paragraph beginning on page 11, line 1 is amended as follows:

Figures 3A-D) show[[s]] luciferase gene delivery *in vivo*. Rats were injected (tail vein) with 5×10^9 pfu of AdCMVLuc or AdfltLuc, either alone (**Figure 3A, Figure 3C**) or in combination with the pulmonary endothelial targeting conjugate Fab-9B9 (**Figure 3B, Figure 3D**), then sacrificed three days later and luciferase activity was determined. Data are means +/- SD of 8-10 rats per group. These results clearly show the striking, synergistic improvement in transgene expression in the target organ which is achieved with the combined targeting approach.

The paragraph beginning on page 11, line 10 is amended as follows:

Figures 4A-C) show[[s]] that targeting fidelity is maintained upon left ventricular injection. Rats were injected via either the tail vein (~~Figure 4A~~) **(Figure 4A)** or left ventricle (~~Figure 4B~~) **(Figure 4B)** with 1×10^{11} viral particles of AdflTLuc + Fab-9B9, and luciferase activity was determined three days later. Data are means \pm s.d. of four rats per group. ~~Figure 4C~~ **Figure 4C** shows left ventricular injection of AdflTLuc alone.

The paragraph beginning on page 11, line 16 is amended as follows:

Figures 5A-B) show[[s]] improved selectivity at high vector dose. Rats were injected (tail vein) with 3×10^{11} viral particles of AdflTLuc, either alone (~~Figure 5A~~) **(Figure 5A)** or in combination with the pulmonary endothelial targeting conjugate Fab-9B9 (~~Figure 5B~~) **(Figure 5B)**, then killed three days later and luciferase activity was determined. Data are means \pm s.d. of four rats per group.

The paragraph beginning on page 12, line 1 is amended as follows:

Figures 6A-F) show[[s]] the distribution of transgene expression within different organs. Rats were injected via the tail vein with 3×10^{10} pfu of either AdCMVCEA + Fab9B9 or AdflTLuc + Fab-9B9, then sacrificed 4 days later. Panels show staining for CEA transgene expression as shown by green

fluorescence. **Figure 6A, Figure 6C and Figure 6E** are sections of lung, liver and spleen, respectively from a rat that received AdCMVCEA + Fab9B9. **Figure 6B, Figure 6D and Figure 6F** are corresponding sections from a rat that received AdfltCEA + Fab-9B9. Nuclei were stained using Hoechst 33342.

The paragraph beginning on page 12, line 11 is amended as follows:

Figures 7A-C) show[[s]] transgene expression in lung. High power view of lung sections from a rat that received AdfltCEA + Fab-9B9, clearly showing transgene expression (green fluorescence) in the endothelium of alveolar capillaries (**Figure 7A**) and small and medium sized vessels (**Figure 7B, 7C**).